

Notice of Allowability

Application No.

10/702,378

Applicant(s)

DOWNS ET AL.

Examiner

Kevin Quarterman

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12 September 2005.
2. ☒ The allowed claim(s) is/are 19-31.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. The application has been amended as follows: **In the Claims**: Please cancel claim 1-18, 32, 33, 35, and 36.

Response to Amendment

3. Applicant's amendment and remarks received 12 September 2005 have been entered and overcome the objections to the drawings and claims.

Election/Restrictions

4. This application is in condition for allowance except for the presence of claims 1-18, 32, 33, 35, and 36 to an invention non-elected without traverse. Accordingly, claims 1-18, 32, 33, 35, and 36 have been cancelled.

Allowable Subject Matter

5. Claims 19-31 are allowed.
6. The following is an examiner's statement of reasons for allowance: Regarding independent claim 19, applicant has added limitations of a bulging portion being formed in the firing tip and argues that the applied reference does not teach this feature. Applicant's arguments in view of this amendment are persuasive.

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7. Thus, the prior art of record neither shows or suggests a method of constructing a ground electrode for a spark plug comprising, in addition to other limitations of the claim, providing a segment of metal wire having an upper surface and a lower surface; forming a through in the wire, the through hole extending between an opening to each of the upper and lower surfaces; and compressing the a firing tip in the direction of its longitudinal axis such that a first end of the firing tip flares outwardly from the longitudinal axis and a bulging portion is formed inside the through hole between the upper and lower surfaces of the wire. Due to their dependency upon independent claim 19, claims 20-24 are also allowable.

8. Regarding independent claim 25, applicant has added limitations of the firing tip undergoing deformation within the through hole and argues that the applied reference does not teach this feature. Applicant's arguments in view of this amendment are persuasive.

9. Thus, the prior art of record neither shows or suggests a method of making a spark plug comprising, in addition to other limitations of the claim, forming a ground electrode having a through hole adjacent one end thereof, the ground electrode having an upper surface and a lower surface with the through hole extending between and opening to each of the upper and lower surface, and compressing the firing tip in the direction of the longitudinal axis until the firing tip undergoes deformation within the through hole at a location between the upper and lower surfaces. Due to their dependency upon independent claim 25, claims 26- 31 are also allowable.

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10. The subject methods discussed earlier are provided for producing a firing tip with an enlarged head providing a mechanical interlock of the tip to the ground electrode.

The design is new and unique to the art.

11. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quarterman whose telephone number is (571) 272-2461. The examiner can normally be reached on M-TH (7-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Quarterman
Examiner
Art Unit 2879

kq 
29 September 2005


Joseph Williams
Primary Examiner
Art Unit 2879